

WHAT IS CLAIMED IS:

1. A wireless communication function equipped sensor comprising:
  - a sensor, physical quantity detection devices, which detect the physical quantity of the detection object,
  - an electric power generators,
  - an electric power charging device which charge the electric power generated by said electric power generators,
  - a processing device which makes the detection results from said physical quantity detection devices,
  - a wireless transmitting device which transmits said detection results to a wireless communication devices by wireless signals,
  - a wireless receiving device which receives wireless signals send from said wireless communication devices;wherein the devices, which are sensors, processing devices, wireless transmitting and receiving devices, are activated intermittently, using the electric power charged by said electric power charging devices supply.
  
2. A wireless communication function equipped sensor comprising:
  - a plurality of sensors, physical quantity detection devices, which detect the physical quantity of the detection object,
  - an electric power generators,
  - an electric power charging device which charge the electric power generated by said electric power generators,
  - a plurality of processing device which makes the detection results from said physical quantity detection devices,
  - a wireless transmitting device which transmits said detection results to a wireless communication devices by wireless signals,

a wireless receiving device which receives wireless signals send from said wireless communication devices;  
wherein the devices, which are sensors, processing devices, wireless transmitting and receiving devices, are activated intermittently, using the electric power charged by said electric power charging devices.

3. A wireless communication function equipped sensor according to claim 1,

wherein said wireless receiving devices is activated by the transmitting devices activated.

4. A wireless communication function equipped sensor according to claim 1, comprising power control device which supplies the electric power charged in said electric power charging device to said load devices and the devices are activated when the electric power charged in said electric power charging device reaches a level sufficient to activate said load devices.

5. A wireless communication function equipped sensor according to claim 1, comprising power control device which supplies sequentially the electric power charged in said electric power charging device to said load devices, which are said physical quantity devices, said processing devices, said wireless transmitting devices and said wireless receiving devices, when the electric power charged in said electric power charging device reaches a level sufficient to activate said load devices.

6. A wireless communication function equipped sensor according to claim 1, comprising storage devices, which are load devices of said electric power charging devices, for storing data of wireless signals received by said wireless receiving devices.

7. A wireless communication function equipped sensor according to claim 1,

wherein said processing devices calculates the amount of data receivable by said wireless transmitting devices or the amount of time allowable for receiving the wireless signal by said wireless receiving devices based on said electric power level when electric power sufficient to activate said load devices is charged in said electric power charging devices, and adds those calculated results to said processing results.

8. A wireless communication function equipped sensor according to claim 1, wherein said processing device changes the operating mode based on the wireless signals received by said wireless receiving device.

9. A wireless communication function equipped sensor according to claim 1, wherein said processing device executes changes in the program showing the procedures which said processing device must process based on the wireless signals received by said wireless receiving device.

10. A wireless communication function equipped sensor according to claim 1, wherein said electric power generating device starts generating electricity in response to the output of an environment

generating device for applying generating conditions predicted as the environment during generation of electricity to said generating device.

11. A wireless communication function equipped sensor according to claim 1, wherein said electric power generating device starts generating electricity in response to the output of an environment generating device for outputting a sound wave or an ultrasonic wave with a frequency identical to that of the vibration during generation of electricity.

12. A wireless communication function equipped sensor according to claim 1, comprising transmission stopping device for stopping the transmission of wireless signals by said wireless transmitting device based on wireless signals received from said wireless receiving device.

13. A wireless communication function equipped sensor according to claim 1, wherein said wireless transmitting device transmits wireless signals to said communication destination by a communications method different from that of said wireless receiving device.

14. A wireless communication function equipped sensor according to claim 1, wherein said wireless transmitting device transmits wireless signals to said communication destination by the UWB communications method and, said wireless receiving device receives wireless signals from said communication destination using any of FM, AM or infrared communications methods.

15. A wireless host as a communication destination of wireless communication function equipped sensors according to claim 1, comprising wireless signal transmitting/receiving device for transmitting and receiving wireless signals to and from said wireless communication function equipped sensor, and said wireless signal transmitting/receiving device transmits wireless signals to said wireless communication function equipped sensor immediately after receiving wireless signals, under the condition that said wireless signals were received from said wireless communication function equipped sensor.

16. A wireless host as the communication destination for said wireless communication function equipped sensor according to claim 15, wherein said wireless signal transmitting/receiving device divides data of signals to be sent and transmits said signals when the data quantity of transmitting signals to be sent to said wireless communication function equipped sensor is larger than the data quantity of wireless signals received from said wireless communication function equipped sensor.

17. A wireless host as the communication destination for said wireless communication function equipped sensor according to claim 15, wherein said wireless signal transmitting/receiving device analyzes the wireless signals received from said wireless communication function equipped sensor and, determines a data quantity of the transmitting signal to be sent at one time to said wireless communication function equipped sensor.